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Case No.	App. No.	Inventor(s)	Attorney(s)	Class
100-8700	100	Yoon, Eun H.	Yoon, Eun H.	100

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DATE MAILED 08/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

9/18/83

Yamamoto et al

T. Yarn

1983

The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address.

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY HAS BEEN SET TO EXPIRE **THREE** MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

Extensions of time may be obtained under the provisions of 37 C.F.R. 1.136. A request for an extension of time must be filed with the Office not later than the last day of the period for reply.

If the period for reply expires on a day which is a Saturday, Sunday, or day of the week designated by the Patent and Trademark Office for the purpose of this rule, the period for reply shall be extended to the next day which is not a Saturday, Sunday, or day of the week designated by the Patent and Trademark Office for the purpose of this rule.

Communication filed after the expiration of the period for reply will be treated as an ABANDONED communication.

To reply by mail, the communication must be accompanied by a fee of \$10.00. If the communication is not accompanied by a fee of \$10.00, it will be treated as an ABANDONED communication.

## Status

☒ Responsive to communication(s) filed 1-24-81, PHE, Indt

This action is **FINAL**.

Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 O.D. 1-1; 453 O.G. 213.

## Disposition of Claims

☒ Claim(s) 1-11 and 13-21

Of the above claim(s):

Claim(s)

is/are pending in the application.

is/are withdrawn from consideration.

☒ Claim(s) 1-11 and 13-21

Claim(s)

is/are allowed.

is/are rejected.

Claim(s)

is/are objected to.

are subject to restriction or election requirement.

## Application Papers

The proposed drawing correction, filed on \_\_\_\_\_, is \_\_\_\_\_ approved \_\_\_\_\_ disapproved.

The drawing(s) filed on \_\_\_\_\_ were objected to by the Examiner.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).

☒ All \_\_\_\_\_ Some\* \_\_\_\_\_ None of the:

☒ Certified copies of the priority documents have been received.

Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

Copies of the certified copies of the priority documents have been received

in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received.

## Attachment(s)

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s).

Interview Summary, PTO-413

☒ Notice of Reference(s) Cited, PTO-892

Notice of Informal Patent Application, PTO-152

Notice of Draftsperson's Patent Drawing Review, PTO-948

Other \_\_\_\_\_

Office Action Summary

Art Unit 1714

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-4, 8-11 and 13-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recited "said varnish having a nonvolatile fraction of not less than 40 weight % and a viscosity at 25°C of not more than 18 poises" is confusing and lacks any probative value since it is directed to the sub-component, not to the whole composition, an antifouling coating. Said properties do not define said antifouling coating which is the claimed final product.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States;

(c) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35

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U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

“(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.”

Claims 1-4, 7-11 and 13-19 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Yamamori et al (US 5,199,977).

Yamamori et al teach antifouling paint compositions comprising the instant acrylic resin in abstract and at col. 1, line 50 to col. 2, line 25. Various monobasic acids such as abietic (col. 3, line 24), molecular weights (4,000 to 100,000) of said acrylic resin (col. 4, lines 34-39), a solid content (51.3 %) and a viscosity (2.2 poise) of a varnish (col. 5, lines 45-46), acid values (examples 1-4) and a volatile organic compound content of not more than 400 g/L (examples 21-38 on col. 8-10) are taught. Said acrylic resin with a molecular weight of 4,000-10,000 would meet the instant degree of polymerization of at least 20, for example, and the recited T<sub>g</sub> is an inherent. Said abietic acid is a rosin.

Thus, the instant invention lacks novelty, and it would have been obvious to one of ordinary skill in the art at the time of the instant invention to modify said acrylic resin and or

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antifouling coating compositions of Yamamori et al since Yamamori et al teach such modifications

Claims 1-11 and 13-21 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Yamamori et al (US 5,199,977) alone, or in view of Codolar et al (US 6,248,806).

The instant invention further recites 5 to 100 mole% of a cyclic organice acid. Codolar et al teach that an abietic acid taught by Yamamori et al is a rosin at col. 10, lines 13-20.

However, it would have been obvious to one of ordinary skill in the art at the time of the instant invention to utilize the recited amount of a cyclic organice acid such as abietic acid which is a rosin in Yamamori et al with or without teaching of Codolar et al since Yamamori et al teach employing an abietic acid absent showing otherwise.

Claims 1, 2, 4, 7-11, 13, 15, 16, 17 and 19 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Yamamori et al (US 4,774,080 or EP 0 204 456).

The examiner points out US '080 since EP and US are equivalent.

Yamamori et al teach antifouling coating compositions comprising the instant acrylic resin in abstract and at col. 2, line 48 to col. 3, line 14. Various monobasic acids such as abietic (col. 4, line 59), molecular weights (4,000 to 40,000) of said acrylic resin (col. 7, line 63 to col. 8, line 9),

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a solid content (48.2-50.2%) and a viscosity (2.2-4.3 poise) of a varnish (references examples 3-6 and examples), acid values (col. 8, lines 46-47) and a volatile organic compound content of not more than 400 g/L (table 1) are taught. Said acrylic resin with a molecular weight of 4,000-10,000 would meet the instant degree of polymerization of at least 20, for example, and the recited T<sub>g</sub> is an inherent

Thus, the instant invention lacks novelty, and it would have been obvious to one of ordinary skill in the art at the time of the instant invention to modify said acrylic resin and/or antifouling coating compositions of Yamamori et al since Yamamori et al teach such modifications.

Claims 1, 2, 4, 10, 11, 13 and 15 are rejected under 35 U.S.C. 102(b) as anticipated by WO 91/15546.

Wo teaches the instant antifouling coating composition at pages 11 and 14. Acrylic resin with a molecular weight of 10,000 has a degree of polymerization of about 30 (page 4, lines 25-28).

Thus, the instant invention lacks novelty.

Claims 1-11 and 13-21 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over EP 0 342 276.

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EP teach antifouling paint compositions comprising the instant acrylic resin in abstract and in examples. Various monobasic acids such as abietic (page 5, line 25), acid values and molecular weights (4,000 to 40,000) of said acrylic resin (page 5, lines 64-58), a rosin (page 7, line 41), a and a volatile organic compound content of not more than 400 g/l. (table 1) are taught. Said acrylic resin with a molecular weight of 4,000-10,000 would meet the instant degree of polymerization of at least 20, for example, and the recited Tg is an inherent. Said abietic acid is a rosin.

Thus, the instant invention lacks novelty, and it would have been obvious to one of ordinary skill in the art at the time of the instant invention to modify said acrylic resin and/or antifouling coating compositions of EP since EP teaches such modifications.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tae H. Yoon whose telephone number is (703) 308-2389. The examiner can normally be reached on Monday to Thursday from 8:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on (703) 306-2777. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-5408.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

THY July 31, 2002

TAE H. YOON  
PRIMARY EXAMINER